

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-35 (Cancelled)

36. (New) A method of treating a metabolic syndrome by controlling the function of a gene and/or a gene product which is influenced and/or modified by a *guf*, CG3811, CG30346 (CG8080), *rdgB*, *Mekk1*, *Ady43A*, CG14816, *tws*, or *PP2A-B'* homologous polypeptide, in a patient in need of such treatment, said method comprising administering to said patient a therapeutically effective amount of a nucleic acid molecule encoding a *guf*, CG3811, CG30346 (CG8080), *rdgB*, *Mekk1*, *Ady43A*, CG14816, *tws*, or *PP2A-B'* homologous protein or a isoform, a functional fragment or a variant thereof.

37. (New) The method of claim 36, wherein the nucleic acid molecule is a nucleic acid molecule described in Table 1.

38. (New) The method of claim 36, wherein the nucleic acid molecule is selected from the group consisting of

- (a) a nucleic acid molecule encoding a polypeptide as shown in Table 1, or an isoform, fragment or variant of said polypeptide;
- (b) a nucleic acid molecule which comprises or is a nucleic acid molecule as shown in Table 1;
- (c) a nucleic acid molecule being degenerated as a result of the genetic code to the nucleic acid sequences as defined in (a) or (b);
- (d) a nucleic acid molecule that hybridizes at 50°C in a solution containing 1 x SSC and 0.1% SDS to a nucleic acid molecule as which is a vertebrate or

insect *guf*, CG3811, CG30346 (CG8080), *rdgB*, *Mekk1*, *Ady43A*, CG14816, *tw*s, or *PP2A-B'* nucleic acid or/and a nucleic acid molecule which is complementary thereto or a functional fragment thereof or a variant thereof or as defined in (a) to (c) or/and a nucleic acid molecule which is complementary thereto;

(e) a nucleic acid molecule that encodes a polypeptide which is at least 85%, preferably at least 90%, more preferably at least 95%, more preferably at least 98% and up to 99,6% identical to a human protein as described in Table 1 or which is a vertebrate or insect *guf*, CG3811, CG30346 (CG8080), *rdgB*, *Mekk1*, *Ady43A*, CG14816, *tw*s, or *PP2A-B'* nucleic acid or/and a nucleic acid molecule which is complementary thereto or a functional fragment thereof or a variant thereof or to a polypeptide as described in (a);

(f) a nucleic acid molecule that differs from the nucleic acid molecule of (a) to (e) by mutation and wherein said mutation causes an alteration, deletion, duplication or premature stop in the encoded polypeptide.